

Weekly Report

18/10/2018 – 28/10/2018

To understand the overview of text visualization, I start with a survey paper of text visualization techniques of Kostiantyn Kucher and Andreas Kerren. The article [1] presents an interactive visual survey of text visualization techniques as a tool for searching related work and gaining inside into the research trends. The web-based that proposed by this survey is available at <http://textvis.lnu.se/>. In the website, I sought a word "software visualization" in the search box for finding the categorization of text visualization techniques in software visualization.

The results I found two works of Emitza Guzman, which are also mentioned in my survey paper. Right now, I focus on "Software Development Projects Emotions Visualization" [2], that is an extended work of "Visualizing Emotions in Software Development Projects" [3] and "Towards Emotional Awareness in Software Development Teams" [4]. All three papers talk about the social factors affecting the software development project. In textual communications that used for discussing in software development, collaboration tools can express the topic and emotion of development teams by lexical sentiment analysis techniques and this group of papers visualized by colored word clouds, circle, and content views; all things belong to emotion score.

Word clouds are used to represent the extracted topics of the analyzed artifacts. The words displayed in each cloud belong to the same topic. Each word cloud is colored depending on the emotion score of the topic. The size of the words pertaining to a word cloud varies depending on the probability that the word belongs to the topic represented by the cloud. The colored word clouds give a general overview of the content and emotions present in the analyzed collaboration artifacts. Each collaboration artifact is represented with a circle, the size of the circle is proportional to the number of words in the artifact, whereas the color represents the emotional content in the artifact. Content views are used to display the exact textual content associated with the word clouds or the circles. Additionally, content views also show the exact emotion score of the content they are presenting.

[1] Kucher, Kostiantyn, and Andreas Kerren. "Text visualization techniques: Taxonomy, visual survey, and community insights." Visualization Symposium (PacificVis), 2015 IEEE Pacific. IEEE, 2015.

[2] Guzman, Emitza. "Visualizing emotions in software development projects." 2013 First IEEE Working Conference on Software Visualization (VISSOFT). IEEE, 2013.

[3] Guzman, Emitza. "Visualizing emotions in software development projects." 2013 First IEEE Working Conference on Software Visualization (VISSOFT). IEEE, 2013.

[4] Guzman, Emitza, and Bernd Bruegge. "Towards emotional awareness in software development teams." Proceedings of the 2013 9th joint meeting on foundations of software engineering. ACM, 2013.